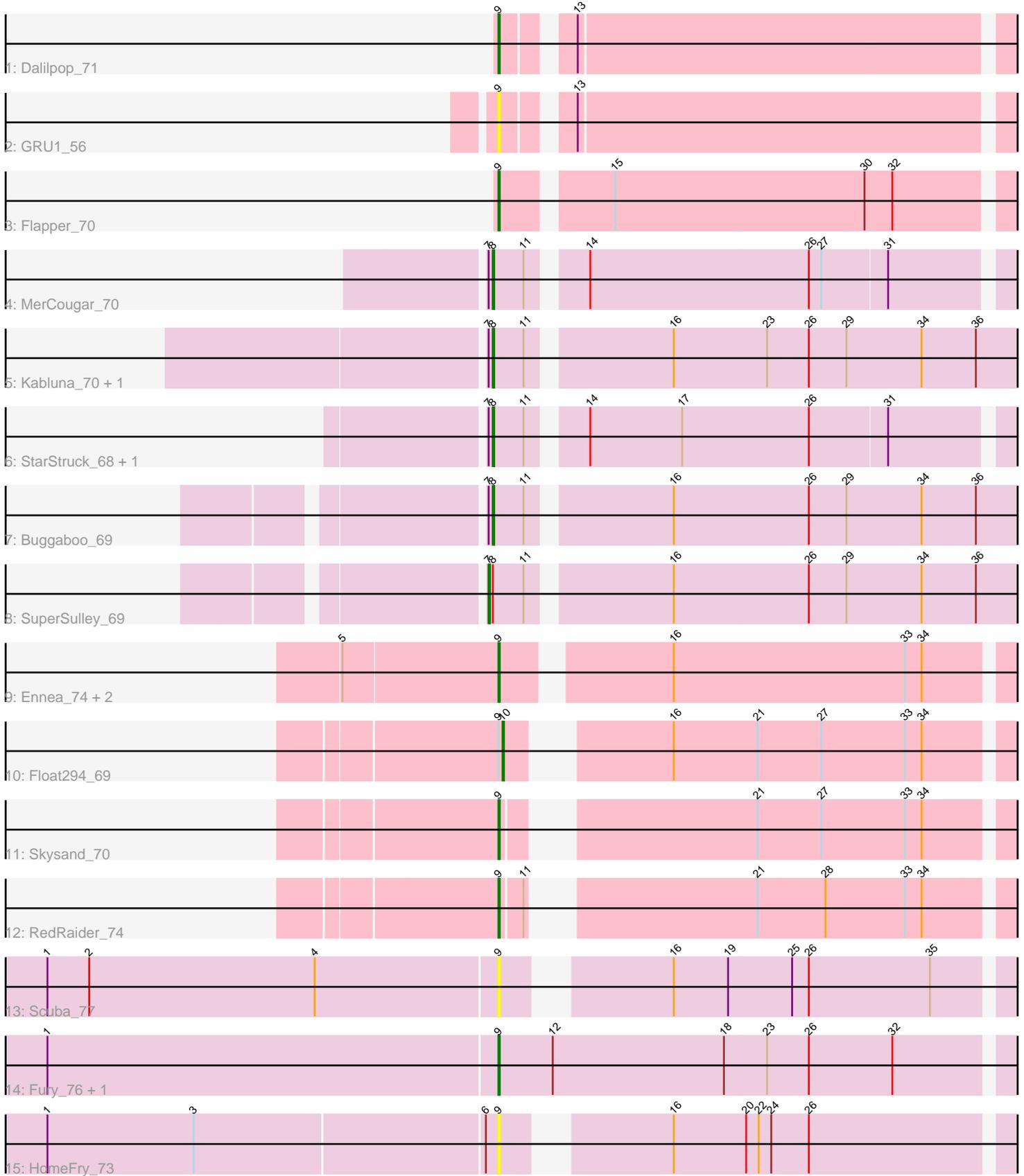


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Note: Tracks are now grouped by subcluster and scaled. Switching in subcluster is indicated by changes in track color. Track scale is now set by default to display the region 30 bp upstream of start 1 to 30 bp downstream of the last possible start. If this default region is judged to be packed too tightly with annotated starts, the track will be further scaled to only show that region of the ORF with annotated starts. This action will be indicated by adding "Zoomed" to the title. For starts, yellow indicates the location of called starts comprised solely of Glimmer/GeneMark auto-annotations, green indicates the location of called starts with at least 1 manual gene annotation.

## Pham 284204 Report

This analysis was run 02/23/26 on database version 636.

Pham number 284204 has 20 members, 3 are drafts.

Phages represented in each track:

- Track 1 : Dalilpop\_71
- Track 2 : GRU1\_56
- Track 3 : Flapper\_70
- Track 4 : MerCougar\_70
- Track 5 : Kabluna\_70, Bonum\_71
- Track 6 : StarStruck\_68, Outis\_68
- Track 7 : Buggaboo\_69
- Track 8 : SuperSulley\_69
- Track 9 : Ennea\_74, Patio\_69, Lollipop1437\_71
- Track 10 : Float294\_69
- Track 11 : Skysand\_70
- Track 12 : RedRaider\_74
- Track 13 : Scuba\_77
- Track 14 : Fury\_76, Pleakley\_76
- Track 15 : HomeFry\_73

### ***Summary of Final Annotations (See graph section above for start numbers):***

The start number called the most often in the published annotations is 9, it was called in 9 of the 17 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Dalilpop\_71, Ennea\_74, Flapper\_70, Fury\_76, GRU1\_56, HomeFry\_73, Lollipop1437\_71, Patio\_69, Pleakley\_76, RedRaider\_74, Scuba\_77, Skysand\_70,

Genes that have the "Most Annotated" start but do not call it:

- Float294\_69,

Genes that do not have the "Most Annotated" start:

- Bonum\_71, Buggaboo\_69, Kabluna\_70, MerCougar\_70, Outis\_68, StarStruck\_68, SuperSulley\_69,

### **Summary by start number:**

Start 7:

- Found in 7 of 20 ( 35.0% ) of genes in pham
- Manual Annotations of this start: 1 of 17
- Called 14.3% of time when present
- Phage (with cluster) where this start called: SuperSulley\_69 (CR2),

Start 8:

- Found in 7 of 20 ( 35.0% ) of genes in pham
- Manual Annotations of this start: 6 of 17
- Called 85.7% of time when present
- Phage (with cluster) where this start called: Bonum\_71 (CR2), Buggaboo\_69 (CR2), Kabluna\_70 (CR2), MerCougar\_70 (CR2), Outis\_68 (CR2), StarStruck\_68 (CR2),

Start 9:

- Found in 13 of 20 ( 65.0% ) of genes in pham
- Manual Annotations of this start: 9 of 17
- Called 92.3% of time when present
- Phage (with cluster) where this start called: Dalilpop\_71 (CR1), Ennea\_74 (CR3), Flapper\_70 (CR1), Fury\_76 (CR5), GRU1\_56 (CR1), HomeFry\_73 (CR5), Lollipop1437\_71 (CR3), Patio\_69 (CR3), Pleakley\_76 (CR5), RedRaider\_74 (CR3), Scuba\_77 (CR5), Skysand\_70 (CR3),

Start 10:

- Found in 1 of 20 ( 5.0% ) of genes in pham
- Manual Annotations of this start: 1 of 17
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Float294\_69 (CR3),

**Summary by clusters:**

There are 4 clusters represented in this pham: CR2, CR3, CR1, CR5,

Info for manual annotations of cluster CR1:

- Start number 9 was manually annotated 2 times for cluster CR1.

Info for manual annotations of cluster CR2:

- Start number 7 was manually annotated 1 time for cluster CR2.
- Start number 8 was manually annotated 6 times for cluster CR2.

Info for manual annotations of cluster CR3:

- Start number 9 was manually annotated 5 times for cluster CR3.
- Start number 10 was manually annotated 1 time for cluster CR3.

Info for manual annotations of cluster CR5:

- Start number 9 was manually annotated 2 times for cluster CR5.

**Gene Information:**

Gene: Bonum\_71 Start: 53306, Stop: 52938, Start Num: 8

Candidate Starts for Bonum\_71:

(Start: 7 @53309 has 1 MA's), (Start: 8 @53306 has 6 MA's), (11, 53285), (16, 53192), (23, 53126), (26, 53096), (29, 53069), (34, 53015), (36, 52976),

Gene: Buggaboo\_69 Start: 53857, Stop: 53489, Start Num: 8

Candidate Starts for Buggaboo\_69:

(Start: 7 @53860 has 1 MA's), (Start: 8 @53857 has 6 MA's), (11, 53836), (16, 53743), (26, 53647), (29, 53620), (34, 53566), (36, 53527),

Gene: Dalilpop\_71 Start: 54508, Stop: 54164, Start Num: 9

Candidate Starts for Dalilpop\_71:

(Start: 9 @54508 has 9 MA's), (13, 54469),

Gene: Ennea\_74 Start: 54607, Stop: 54260, Start Num: 9

Candidate Starts for Ennea\_74:

(5, 54715), (Start: 9 @54607 has 9 MA's), (16, 54502), (33, 54337), (34, 54325),

Gene: Flapper\_70 Start: 53705, Stop: 53355, Start Num: 9

Candidate Starts for Flapper\_70:

(Start: 9 @53705 has 9 MA's), (15, 53636), (30, 53459), (32, 53441),

Gene: Float294\_69 Start: 54498, Stop: 54169, Start Num: 10

Candidate Starts for Float294\_69:

(Start: 9 @54501 has 9 MA's), (Start: 10 @54498 has 1 MA's), (16, 54411), (21, 54351), (27, 54306), (33, 54246), (34, 54234),

Gene: Fury\_76 Start: 52857, Stop: 52495, Start Num: 9

Candidate Starts for Fury\_76:

(1, 53178), (Start: 9 @52857 has 9 MA's), (12, 52818), (18, 52695), (23, 52665), (26, 52635), (32, 52575),

Gene: GRU1\_56 Start: 45547, Stop: 45203, Start Num: 9

Candidate Starts for GRU1\_56:

(Start: 9 @45547 has 9 MA's), (13, 45508),

Gene: HomeFry\_73 Start: 51531, Stop: 51199, Start Num: 9

Candidate Starts for HomeFry\_73:

(1, 51849), (3, 51744), (6, 51540), (Start: 9 @51531 has 9 MA's), (16, 51435), (20, 51384), (22, 51375), (24, 51366), (26, 51339),

Gene: Kabluna\_70 Start: 52635, Stop: 52267, Start Num: 8

Candidate Starts for Kabluna\_70:

(Start: 7 @52638 has 1 MA's), (Start: 8 @52635 has 6 MA's), (11, 52614), (16, 52521), (23, 52455), (26, 52425), (29, 52398), (34, 52344), (36, 52305),

Gene: Lollipop1437\_71 Start: 54287, Stop: 53940, Start Num: 9

Candidate Starts for Lollipop1437\_71:

(5, 54395), (Start: 9 @54287 has 9 MA's), (16, 54182), (33, 54017), (34, 54005),

Gene: MerCougar\_70 Start: 54345, Stop: 53992, Start Num: 8

Candidate Starts for MerCougar\_70:

(Start: 7 @54348 has 1 MA's), (Start: 8 @54345 has 6 MA's), (11, 54324), (14, 54291), (26, 54135), (27, 54126), (31, 54081),

Gene: Outis\_68 Start: 53482, Stop: 53129, Start Num: 8

Candidate Starts for Outis\_68:

(Start: 7 @53485 has 1 MA's), (Start: 8 @53482 has 6 MA's), (11, 53461), (14, 53428), (17, 53362), (26, 53272), (31, 53218),

Gene: Patio\_69 Start: 53344, Stop: 52997, Start Num: 9

Candidate Starts for Patio\_69:

(5, 53452), (Start: 9 @53344 has 9 MA's), (16, 53239), (33, 53074), (34, 53062),

Gene: Pleakley\_76 Start: 52858, Stop: 52496, Start Num: 9

Candidate Starts for Pleakley\_76:

(1, 53179), (Start: 9 @52858 has 9 MA's), (12, 52819), (18, 52696), (23, 52666), (26, 52636), (32, 52576),

Gene: RedRaider\_74 Start: 55645, Stop: 55316, Start Num: 9

Candidate Starts for RedRaider\_74:

(Start: 9 @55645 has 9 MA's), (11, 55630), (21, 55498), (28, 55450), (33, 55393), (34, 55381),

Gene: Scuba\_77 Start: 52913, Stop: 52581, Start Num: 9

Candidate Starts for Scuba\_77:

(1, 53234), (2, 53204), (4, 53042), (Start: 9 @52913 has 9 MA's), (16, 52817), (19, 52778), (25, 52733), (26, 52721), (35, 52634),

Gene: Skysand\_70 Start: 53998, Stop: 53669, Start Num: 9

Candidate Starts for Skysand\_70:

(Start: 9 @53998 has 9 MA's), (21, 53851), (27, 53806), (33, 53746), (34, 53734),

Gene: StarStruck\_68 Start: 53482, Stop: 53129, Start Num: 8

Candidate Starts for StarStruck\_68:

(Start: 7 @53485 has 1 MA's), (Start: 8 @53482 has 6 MA's), (11, 53461), (14, 53428), (17, 53362), (26, 53272), (31, 53218),

Gene: SuperSulley\_69 Start: 53860, Stop: 53489, Start Num: 7

Candidate Starts for SuperSulley\_69:

(Start: 7 @53860 has 1 MA's), (Start: 8 @53857 has 6 MA's), (11, 53836), (16, 53743), (26, 53647), (29, 53620), (34, 53566), (36, 53527),